



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No. :	10/803,306	)	CERTIFICATE OF MAILING
Applicant :	Glenn C. Calhoun et al.	)	I hereby certify that this
Filed :	March 18, 2004	)	correspondence is being deposited with
Title :	Process for Preparing an	)	the United States Postal Service with
	Aqueous Dispersion of a	)	sufficient postage as first class mail in
	Quaternary Ammonium Salt	)	an envelope addressed to:
	Containing Vinyl Copolymer	)	Commissioner of Patents, P.O. Box
		)	1450, Alexandria, VA 22313-1450, on
TC/A.U. :	1713	)	this <u>7th</u> day of <u>September</u> 2006.
Examiner :	Harlan, Robert D.	)	<u>Dorothy C. Hauser</u> 9-7-06
		)	Dorothy Hauser Date
Docket No. :	100-00268)	

DECLARATION OF GLENN C. CALHOUN

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Glenn C. Calhoun, hereby declare that:

1. I am one of the joint inventors of the subject matter defined by claims 1-24 and described in the specification of the above-identified patent application.
2. I, together with Rodney M. Weston, the other joint inventor, conceived and reduced practice the invention defined by claims 1-24 of the present patent application prior to September 20, 2002.
3. In support of the statement in paragraph 2 herein, I submit Exhibit A attached hereto which is a two page exhibit comprising copies of pages from my experimental notebook setting forth various experiments involving the claimed process.
4. The dates blacked out on Exhibit A are all prior to September 20, 2002.
5. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of

Application No. 10/803,306
Attorney Docket No. 100-00268

Title XVIII of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

September 7, 2006
Date

Glenn C. Calhoun
Signature
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142 TITLE MU-5 Acetone
Process

SEP 11 2006

PROJECT NO.
BOOK NO.

Work continued from Page

Purpose: To prepare a batch of MU-5 using a 75:25 acetone
water mixture

Procedure

426.94 g of acetone and 133.84 g of deionized H₂O were placed
in a 3L round bottom flask. The solvent was bubbled
with N₂ while the temp contents of the flask was
cooled to 0°C. After about 20 minutes, the material was
heated to reflux.

Two monomer mixtures were prepared. A mixture of
45.0 g of H₂O and 42.42 g of ADAMQUAT was bubbled
with N₂. A mixture of 1.92 g V65B, 286.56 g MA, and
135 g of acetone was also bubbled with N₂ while
cooling in ice H₂O. The monomer feeds were
added from separate pumps.

Reaction Log

Time	Temp	Comment
8:35	143	Start monomer feeds
9:05	140	okay
9:35	141	okay
10:05	142	okay
10:35	142	okay
11:05	142	okay
11:35	143	okay
12:05	142	okay
12:27	142	End monomer feed
1:27	141	okay
2:27	141	Cool.

Solvent was removed - see page 146. Viscosity 300 cp
GC analysis for MA residual
% MA left = 6.5%

EXHIBIT A

BEST AVAILABLE

Work continued to Page

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60605 MADE IN USA

SIGNATURE

Oliver C. Collier

DATE

WITNESS

DATE

DATE

146 TITLE Acetone Removal
From 1408-142

PROJECT NO.
BOOK NO.

Work continued from Page

Purpose: To remove acetone from 1408-142 and replace with water

Procedure

Acetone was removed from the polymer solution by distillation. At first, the solvent came off rapidly at 145-155°F. 100g aliquots of water were added to reduce viscosity. The material became thick as much of the solvent was removed. About 800g of total water was added.

Most of the distillate was collected over the first three hours. Distillation was slower after that. Temperature was raised and there were times of heavy foaming. Temp was raised to 210°F over the next 3.5 hours.

No further distillate was coming over.

The final solution was slightly translucent.

Viscosity = 210 cps % solids = 25.5

Residual Acetone by GC = 0.21%

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EXHIBIT A